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ATLAS OF ZEOLITE STRUCTURE TYPES

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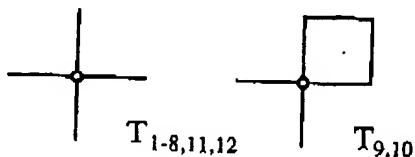
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London Boston Singapore Sydney Toronto Wellington

MFI**ZSM-5****Pnma**

Framework density: 17.9 T/1000 Å³

**Loop configuration
of T-atoms:**



Coordination sequences:

T ₁ (8)	4	12	22	41	61	88	125	159	198	250
T ₂ (8)	4	12	22	39	64	91	117	158	209	247
T ₃ (8)	4	12	23	37	62	91	120	157	206	250
T ₄ (8)	4	12	21	36	61	90	122	159	196	251
T ₅ (8)	4	12	24	38	63	93	123	157	206	247
T ₆ (8)	4	12	22	40	61	88	124	156	197	253
T ₇ (8)	4	12	24	38	56	90	132	164	193	241
T ₈ (8)	4	12	21	37	63	90	121	155	201	253
T ₉ (8)	4	11	23	39	62	93	119	153	204	254
T ₁₀ (8)	4	11	22	36	61	93	120	154	200	255
T ₁₁ (8)	4	12	22	38	59	92	125	159	202	250
T ₁₂ (8)	4	12	23	38	59	89	126	161	196	246

Channels: {[010] **10** 5.3 x 5.6 ↔ [100] **10** 5.1 x 5.5}***

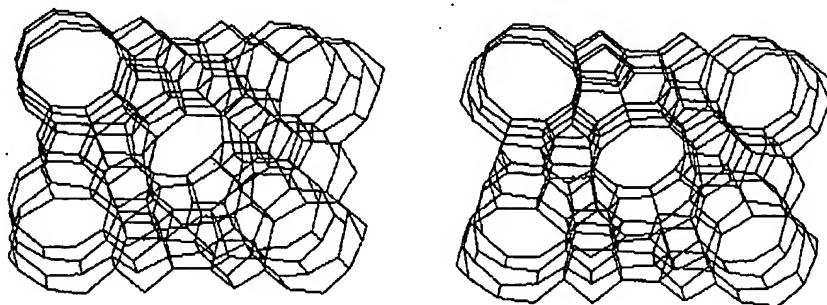
Type material: ZSM-5 Na_n[Al_nSi_{96-n}O₁₉₂] ~ 16 H₂O
with n < 27
orthorhombic, Pnma, a=20.1, b=19.9, c=13.4 Å(1,2)

Isotypic framework structures: Silicalite⁽³⁾ (see also Appendix MFI)

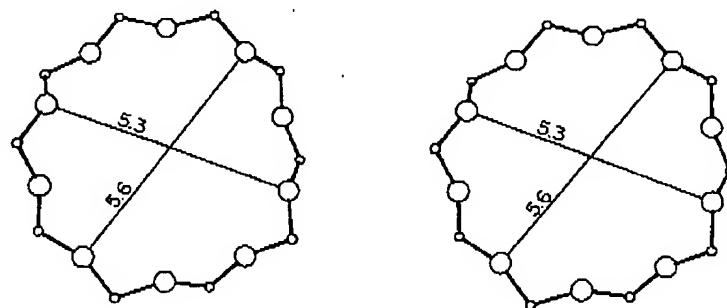
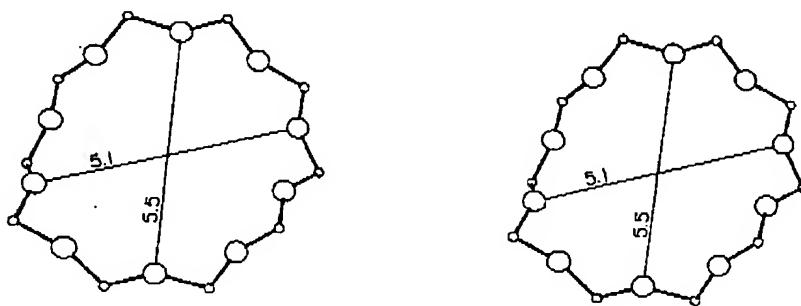
Alternate designations: Silicalite I

References:

- (1) G. T. Kokotailo, S. L. Lawton, D. H. Olson and W. M. Meier, Nature **272**, 437 (1978).
- (2) D. H. Olson, G. T. Kokotailo, S. L. Lawton and W. M. Meier, J. Phys. Chem. **85**, 2238 (1981).
- (3) E. M. Flanigen, J. M. Bennett, R. W. Grose, J. P. Cohen, R. L. Patton, R. M. Kirchner and J. V. Smith, Nature **271**, 512 (1978).

8 T₁₋₁₂(1)**MFI**

framework viewed along [010]

10-ring viewed along [010]
(straight channel)10-ring viewed along [100]
(sinusoidal channel)

(See Appendix MFI)

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